

Ser. No.: 10/826,783

Amdt. Dated: 10-27-2005

Reply to Office Action of Aug. 1, 2005

**III. AMENDMENTS TO THE DRAWINGS:**

Please accept the attached sheet of proposed drawing corrections including changes to Figure 3. This sheet replaces the sheet of formal drawings filed on June 3, 2004. In Figure 3, the reference signs "320" and "340" have been added.

Attachment: Replacement Sheet including Figure 3; and  
Annotated Sheet Showing Changes to Figure 3.

Ser. No.: 10/826,783  
Amdt. Dated: 10-27-2005  
Reply to Office Action of Aug. 1, 2005

#### **IV. Remarks In Response to the Office Action**

##### **A. General Remarks**

Claims 1-32 were pending in the application prior to this Reply. Claim 2 has been cancelled, and new claims 33-48 have been added. Therefore, claims 1 and 3-48 are pending in the application.

##### **B. Allowable Subject Matter**

1. Claims 2, 3, 11, and 12 stand objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim. In response:

- Claim 1 has been amended to include the subject matter claimed in original claim 2, which has been cancelled. Accordingly, claim 1 and all the claims depending therefrom are believed to be allowable.
- Claim 11 has been rewritten in independent form as new claim 33 with all the limitations of base claim 8. New claims 34-41 depend from new claim 33 and are fully supported by the originally filed specification and claims. Accordingly, new claims 33-41 are believed to be allowable.

2. Claims 16 and 19 would be allowable if rewritten to overcome the rejections under 35 U.S.C. § 112, 2<sup>nd</sup> paragraph, and to include all of the limitations of the base claim and any intervening claim.

- Claim 16 has been rewritten in independent form as new claim 42 to include all the limitations of original base claim 8. New claims 43-50 depend from new claim 42 and are fully supported by the originally filed claims and specification. Accordingly, new claims 42-50 are believed to be allowable.

3. Claims 20-32 would be allowable if rewritten to overcome the rejections under 35 U.S.C. § 112, 2<sup>nd</sup> paragraph.

- Based on the amendments to independent claim 20 and dependent claims 26 and 32 detailed below, claims 20-32 are believed allowable, and allowance of these claims is respectfully requested in the next paper from the Office.

Ser. No.: 10/826,783

Amdt. Dated: 10-27-2005

Reply to Office Action of Aug. 1, 2005

With the above-described amendments, claims 1, 3-7, and 33-50 are believed to be allowable, and allowance of these claims is respectfully requested in the next paper from the Office.

**C. Objections to the Drawings**

The drawings stand objected to for failing to include reference signs mentioned in the description and for including reference signs not mentioned in the description. In response:

- Assignee has amended Figure 3 in the attached replacement sheet to include reference signs 320 and 340, which are mentioned in the paragraph [0032] of the description and shown in the original drawings filed with the application. No new matter has been added.
- Assignee notes that reference signs 420 and 440 are located near the right margin in the drawing sheet for Figure 4.
- As discussed below, Assignee has amended paragraph [0023] to include language from block 260 in Figure 2 and to include the reference sign "260." No new matter has been added.

With these changes, Assignee believes that the drawings comply with 37 C.F.R. § 1.64(p)(5) and respectfully request that the objections of the drawings be reconsidered and withdrawn.

**D. Objections to the Specification**

The Abstract of the disclosure is objected to because the Abstract contains language considered to be purported merits. In response, Assignee has amended the Abstract by replacing the objectionable language with "A method of stimulating an entire target formation of an oil or gas well during fluid treatment..." With this change, Assignee respectfully requests that the objection to the Abstract be reconsidered and withdrawn.

Ser. No.: 10/826,783

Amdt. Dated: 10-27-2005

Reply to Office Action of Aug. 1, 2005

**E. Claim Objections**

Claims 1, 17-20, and 32 stand objected to because of informalities. In response:

- Assignee has changed "Fracture Gradient" to --fracture gradient-- in claim 1.
- Assignee has deleted step labeling in claims 8, 16-20 and 30-32.
- Assignee has changed "the first portion" to --the second portion-- in line 9 of claim 20.

Assignee believes the above amendments address the objections to the claims, and Assignee respectfully requests that the objections of these claims be reconsidered and withdrawn.

**F. Claim Rejections – 35 USC § 112**

Claims 16 and 19-32 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. In response:

- Claims 16, 19, 20, and 32 have been amended to replace the phrase "undiverting fluid" with --removing the diversion of fluid--, which is believed to make the claims more readable.
- Claim 26 (and similarly claim 12) has been amended to change "the portion" in the claim to --either of the first or second portions--, which is believed to make the claims more readable.

Assignee believes the above amendments address the rejection to the claims under 35 U.S.C. § 112, second paragraph, and Assignee respectfully requests that the rejection of claims 16 and 19-32 be reconsidered and that these claims be allowed in the next paper from the Office.

Ser. No.: 10/826,783  
Amdt. Dated: 10-27-2005  
Reply to Office Action of Aug. 1, 2005

**G. Claim Rejections – 35 USC § 102**

Claims 1, 4-10, 13-15, 17, and 18 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Nierode (US 6,186,230).

**1. Claims 1 & 4-7**

As noted above, independent claim 1 has been amended to include the subject matter of allowable claim 2. Accordingly, independent claim 1 is not believed to be anticipated by Nierode, and allowance of claim 1 and those depending therefrom is respectfully requested in the next paper from the Office.

**2. Claims 8-10, 13-15, & 17-18**

Assignee respectfully traverses the rejection of claims 8-10, 13-15, and 17-18 in so far as Nierode does not teach or suggest all of the limitations of independent claim 8.

**a. Legal Principles**

“For a prior art reference to anticipate in terms of 35 U.S.C. 102, every element of the claimed invention must be identically shown in a single reference.”<sup>1</sup> Further, the “identical invention must be shown in as complete detail as is contained in the patent claim”<sup>2</sup> and the “elements must be arranged as in the claim under review.”<sup>1</sup> Thus, for Nierode to anticipate claims 8-10, 13-15, and 17-18, Nierode must disclose each element as arranged in the claims and in as complete detail as contained in the claims.

**b. Review of Nierode**

Nierode is directed to “a method for designing the placement, number, size, and treatment of multiple perforated intervals so that only one such interval is fractured during each fracturing stage while at the same time determining the sequence order in which intervals are treated” Nierode at col. 3:37-41. By designing the perforation intervals, Nierode’s objective is to “select perforation intervals and fracture treatment parameters such that each set of perforation is fractured in a separate stage of treatment and sealed by ball sealers during the fracturing of other intervals” Nierode at col. 4:48-52. To achieve this, Nierode discloses designing the placement, number, size, and treatment of multiple perforated intervals based on a six-dimensional operating

<sup>1</sup> *Diversitech Corp. v. Century Steps, Inc.*, 850 F.2d 675, 677 (Fed. Cir. 1988).

<sup>2</sup> *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir.), cert. denied, 493 U.S. 853 (1989)

Ser. No.: 10/826,783  
Amdt. Dated: 10-27-2005  
Reply to Office Action of Aug. 1, 2005

window. See Nierode at col. 5:4-48. Parameters for the design are predetermined from calculations and/or well measurements, such as a density log. See Nierode at col. 6:25-35.

**c. Assignee's Claims**

By contrast, independent claim 8 is directed to a method of treating a formation with fluid. The formation has a plurality of portions and has a casing positioned through the portions. The portions define fracture gradients, and the casing defines a plurality of perforations. Fluid is pumped into the casing in order to treat at least a first portion of the formation *regardless of the location of that first portion in the formation*. Fluid is pumped into the casing and diverted from the first portion in order to treat at least a second portion of the formation *regardless of the location of the second portion in the formation*. A determination is made if fluid is substantially diverted from the first portion to the second portion. If fluid is substantially diverted from the first portion to the second portion, fluid is pumped into the casing and diverted from the first and second portions in order to treat at least a successive portion of the formation *regardless of the location of the successive portion in the formation*.

**d. Discussion**

As previously noted, Nierode is directed to designing the placement, number, size, and treatment of multiple perforated intervals to achieve the objective of separately treating perforation intervals. Thus, Nierode fails to disclose *treating portions of a formation regardless of their location in the formation*, because Nierode is explicitly directed to designing the number, size, and treatment of perforation intervals based on well measurements and calculations. Moreover, Nierode also fails to disclose *determining if fluid is substantially diverted from such portions (i.e., those portions treated regardless of their orientation) before treating a successive portion of the formation regardless of its location in the formation*. Rather Nierode is directed to *designing the treatment of multiple perforated intervals one at a time and not directly determining if fluid is diverted before treating a successive portion of a formation regardless of its location*. For at least these reasons, Nierode cannot anticipate claims 8-10, 13-15, and 17-18. Accordingly, Assignee respectfully requests reconsideration and withdrawal of the

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<sup>1</sup> *In re Bond*, 910 F.2d 831, 832 Fed. Cir. 1990), *reh'g denied*, 1990 U.S. App. LEXIS 19971 (Fed. Cir. 1990)). See also M.P.E.P. 2131.

Ser. No.: 10/826,783  
Amdt. Dated: 10-27-2005  
Reply to Office Action of Aug. 1, 2005

rejection, and allowance of claims 8-10, 13-15, and 17-18 is respectfully requested in the next paper from the Office.

**H. Conclusion**

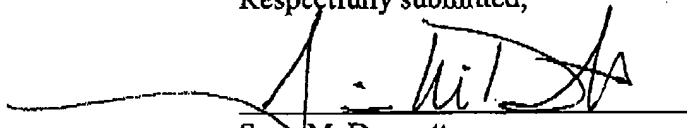
One dependent claim has been cancelled, two independent claims have been added, and eighteen dependent claims have been added. Accordingly, the undersigned representative authorizes the Commissioner to charge the fee of \$625.00 to Deposit Account No. 501922, referencing order no. 304-0002US, for claim fees (2 x \$100 and 17 x \$25 for small entity) in excess of those already paid. The undersigned representative requests any extension of time that may be deemed necessary to further the prosecution of this application. Should any fees be due for any reason, the undersigned representative authorizes the Commissioner to charge any additional fees that may be required, or credit any overpayment, to Deposit Account No. 501922, referencing order no. 304-0002US.

\* \* \* \*

The Examiner is invited to contact the undersigned patent agent at 832-446-2416 with any questions, comments or suggestions relating to the referenced patent application.

10/28/05  
Date


Respectfully submitted,

  
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Registration No. 49,000

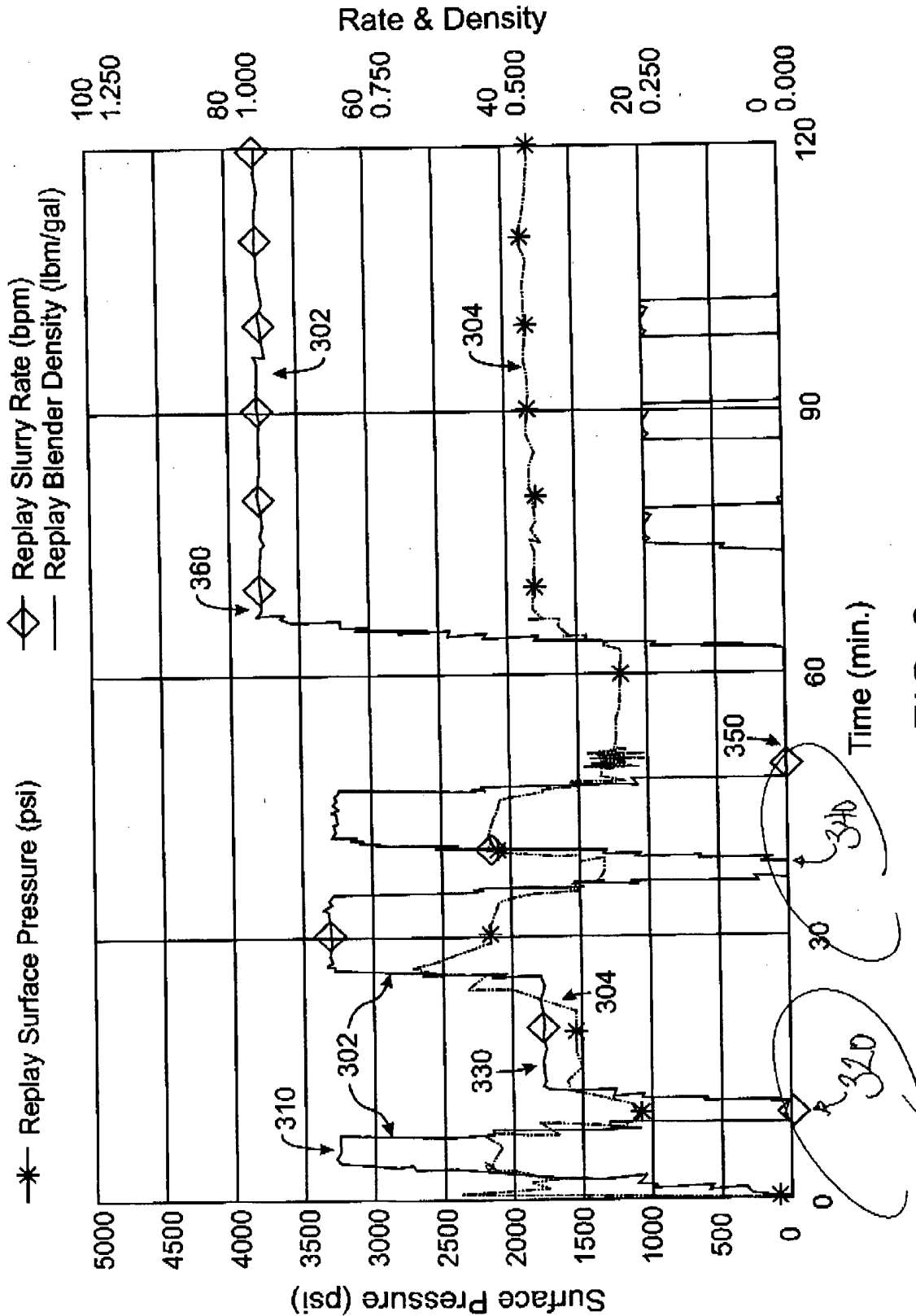
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App. No. 10/826,783  
Amdt. Dtd. 10-27-05  
ANNOTATED SHEET



**FIG. 3**